

What is claimed is:

1. A network device comprising:
an internal configuration database process for managing configuration of internal resources within the network device in response to configuration input provided by an external Network Management System (NMS) process.
2. The network device of claim 1, further comprising:
a plurality of modular processes that communicate with the configuration database to access configuration data, wherein the processes use the configuration data to modify execution behavior.
3. A communications system, comprising:
a network device comprising:
an internal configuration database process for managing configuration of internal resources within the network device;
a computer system comprising:
an input mechanism for receiving configuration input data from a network manager;
and
a Network Management System (NMS) process for responding to the configuration input data and for sending configuration data to the configuration database process within the network device;
wherein the configuration database process within the network device configures internal resources of the network device in response to the configuration data received from the NMS.
4. The communications system of claim 3, wherein the computer system further comprises:
an internal NMS database process for tracking configuration information stored by the configuration database within the network device.

5. The communications system of claim 4, wherein for any change to the configuration data stored by the configuration database, the configuration database sends a notification of the change to the NMS database within the computer system to synchronize the NMS database with the configuration database.
6. The communications system of claim 5, wherein the change notification sent to the NMS database by the configuration database includes data representing the change to the configuration data.
7. The communications system of claim 3, wherein the configuration database supports an active query feature and the NMS database is configured to establish an active query for all records within the configuration database to synchronize the NMS database with the embedded database.
8. The communications system of claim 3, wherein the NMS process communicates with the configuration database through a standard database protocol.
9. The communications system of claim 8, wherein the NMS process also communicates with the NMS database through the standard database protocol.
10. The communications system of claim 8, wherein the standard database protocol comprises a Java Database Connectivity (JDBC) protocol.
11. The communications system of claim 8, wherein the computer system comprises a workstation.
12. The communications system of claim 8, wherein the computer system comprises a personal computer.
13. The communications system of claim 8, wherein the network device is a switch.

14. The communications system of claim 8, wherein the network device is a router.
15. The communications system of claim 8, wherein the network device is a hybrid switch-router.
16. A method of configuring a network device, comprising:
receiving configuration input data from a network manager through an input mechanism on a computer system independent of the network device;
operating on the received configuration input data to generate configuration data;
sending the generated configuration data to a configuration database process within the network device;
configuring internal resources within the network device in response to the generated configuration data.
17. The method of claim 16, further comprising:
sending notifications of changes to data stored within the configuration database to a Network Management System (NMS) database process executing on the computer system to synchronize the NMS database with the configuration database.
18. The method of claim 16, further comprising:
executing an NMS process within the computer system; and
wherein sending the generated configuration data to the configuration database process includes using a standard database protocol.
19. The method of claim 16, wherein the configuration database supports an active query feature and further comprising:
establishing an active query for all records within the configuration database for the NMS database.